

CLAIMS

What is claimed is:

1. An electronic module suitable for use in connection with a host device that includes a port, the electronic module being configured to interface with corresponding structure of the port so as to be removably positioned within the port, and the electronic module comprising:

a printed circuit board having circuitry configured to interface with the host device when the module is operatively received within the port;

an end connector in communication with at least some of the circuitry and being configured to interface with the port;

a housing including a pair of opposing sidewalls that cooperate to at least partially enclose the printed circuit board; and

a latch mechanism attached at least indirectly to the sidewalls of the housing and comprising:

a pair of opposing sliders, each of which is at least partially received in a respective opposing sidewall of the housing, and the sliders being collectively configured and arranged to facilitate selective engagement of the module with the corresponding structure of the port; and

a bail attached to the sliders and to the opposing sidewalls, and the bail being configured and arranged such that motion of the bail results in a corresponding motion of the sliders.

2. The electronic module as recited in claim 1, wherein the bail is movable between a first position wherein the electronic module is removably latched to the port, and a second position wherein the electronic module is unlatched from the port.

3. The electronic module as recited in claim 2, wherein the bail is rotatably attached to the sliders, and wherein the bail is configured for both translational and rotational motion relative to the sidewalls.

4. The electronic module as recited in claim 1, wherein a rotational motion of the bail corresponds to substantially linear motion of the sliders.

5. The electronic module as recited in claim 1, further comprising at least one resilient element configured and arranged to bias the bail into a desired position.

6. The electronic module as recited in claim 1, further comprising a 'receive' optical subassembly and 'transmit' optical subassembly, both of which are in communication with the circuitry.

7. The electronic module as recited in claim 1, wherein the module substantially conforms to the XFP standard.

8. A latch mechanism suitable for use in connection with an electronic module having a housing configured to be selectively received within a port of a host device, the latch mechanism configured to interact with corresponding structure of the port and comprising:

a pair of opposing sliders, each of which is at least partially received in the housing of the module, and the sliders being collectively configured and arranged to facilitate selective engagement of the module with the corresponding structure of the port; and

a bail attached to the sliders and to the housing of the module, the bail being configured and arranged such that motion of the bail results in a corresponding motion of the sliders, and the bail being movable between a first position wherein the electronic module is removably latched to the port, and a second position wherein the electronic module is unlatched from the port.

9. The latch mechanism as recited in claim 8, wherein the sliders are configured and arranged to move in unison under the influence of the bail.

10. The latch mechanism as recited in claim 8, wherein a rotational motion of the bail corresponds to substantially linear motion of the sliders.

11. The latch mechanism as recited in claim 8, wherein the bail comprises a set of inner pins and a set of outer pins, the set of inner pins being configured to be rotatably connected to the housing of the module, and the set of outer pins being rotatably connected to the sliders.

12. The latch mechanism as recited in claim 8, further comprising at least one resilient element configured and arranged to bias the bail into a desired position.

WORKMAN NYDEGGER
A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW
1000 EAGLE GATE TOWER
60 EAST SOUTH TEMPLE
SALT LAKE CITY, UTAH 84111

13. An opto-electronic module suitable for use in connection with a host device that includes a port, the opto-electronic module being configured to interface with corresponding structure of the port so as to be removably positioned within the port, and the opto-electronic module comprising:

a 'receive' optical subassembly;

a 'transmit' optical subassembly;

a printed circuit board having circuitry in communication with the 'receive' and 'transmit' optical subassemblies, and being configured to interface with the host device when the opto-electronic module is operatively received within the port;

an end connector in communication with at least some of the circuitry and being configured to interface with the port;

a housing including a pair of opposing sidewalls that cooperate to at least partially enclose the printed circuit board and the 'receive' and 'transmit' optical subassemblies; and

a latch mechanism attached at least indirectly to the sidewalls of the housing and comprising:

a pair of opposing sliders, each of which is at least partially received in a respective opposing sidewall of the housing, and the sliders being collectively configured and arranged to facilitate selective engagement of the module with the corresponding structure of the port; and

a bail rotatably attached to the sliders and also rotatably attached to the opposing sidewalls, and the bail being configured and arranged such that rotation of the bail results in linear motion of the sliders.

14. The opto-electronic module as recited in claim 13, wherein the bail is movable between a first position wherein the electronic module is removably latched to the port, and a second position wherein the electronic module is unlatched from the port.

15. The opto-electronic module as recited in claim 13, further comprising at least one resilient element configured and arranged to bias the bail into a desired position.

16. The opto-electronic module as recited in claim 15, wherein the at least one resilient element is configured and arranged to bias the bail into a first position wherein the electronic module is removably latched to the port.

17. The opto-electronic module as recited in claim 13, wherein the opto-electronic module substantially conforms to the XFP standard.

18. A latch mechanism suitable for use in connection with an electronic module conforming to the XFP standard, the electronic module having a housing that includes opposing sidewalls and is configured to be selectively received within a port of a host device, the latch mechanism configured to interact with corresponding structure of the port and comprising:

a pair of opposing sliders, each of which is received in a corresponding sidewall of the module and each of which is configured and arranged for translational motion relative to the sidewall, and the sliders being collectively configured and arranged to facilitate selective engagement of the module with the corresponding structure of the port;

a bail attached to the sliders and to the housing of the module, the bail being configured and arranged such that motion of the bail results in a corresponding motion of the sliders, and the bail being movable between a first position wherein the electronic module is removably latched to the port, and a second position wherein the electronic module is unlatched from the port; and

a pair of resilient elements, each of the resilient elements being retained in a respective recess cooperatively defined by a slider and the housing of the module, the pair of resilient elements being collectively configured and arranged to bias the bail into a desired position.

19. The latch mechanism as recited in claim 18, wherein the bail is movable between a first position wherein the sliders are engaged with the corresponding structure of the port, and a second position wherein the sliders are disengaged from the corresponding structure of the port.

20. The latch mechanism as recited in claim 18, wherein the bail is rotatably attached to the pair of sliders and to the module housing.

21. The latch mechanism as recited in claim 18, wherein a rotational motion of the bail corresponds to substantially linear motion of the sliders.

22. The latch mechanism as recited in claim 18, wherein the pair of resilient elements bias the bail into a position where the sliders have engaged the corresponding structure of the port.